

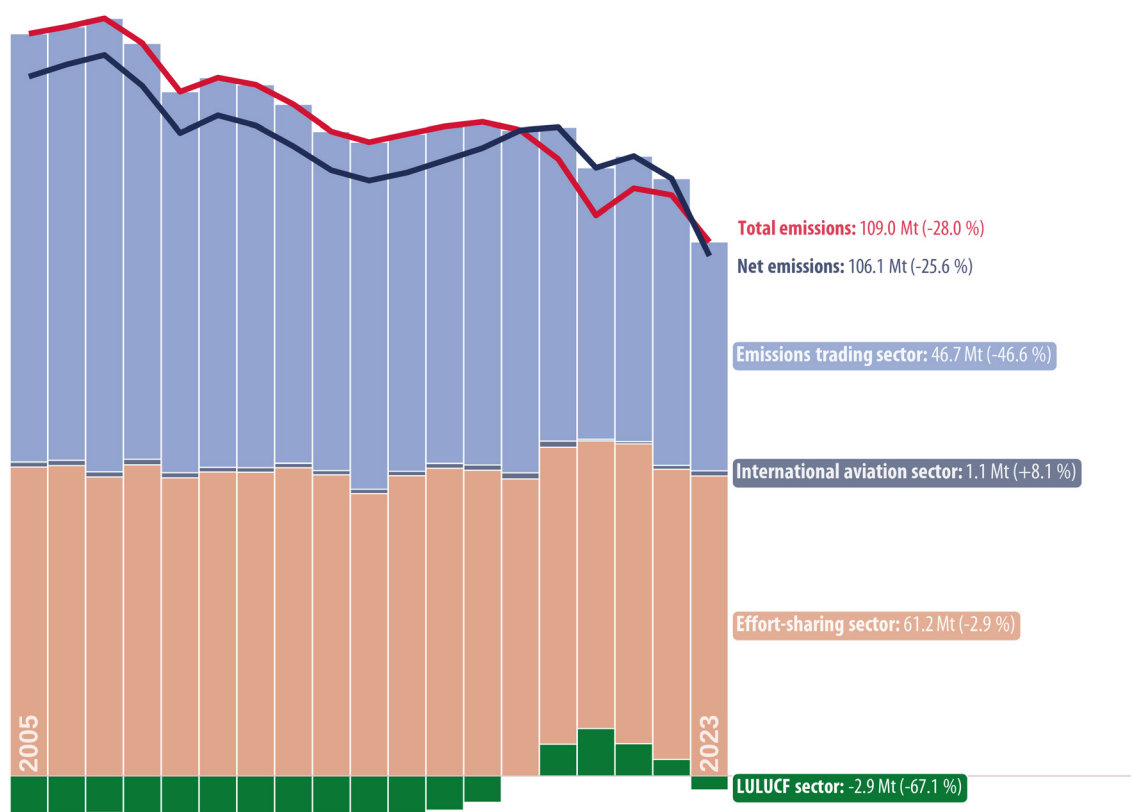
## Czechia's climate action strategy

Czechia does not have a national climate target, and aims to reduce greenhouse gas (GHG) emissions in line with EU climate and energy legislation. Czechia accounted for 3.6 % of the EU's net GHG emissions in 2023. The country reduced its net emissions by 25.6 % over the 2005–2023 period, which is less than the EU average reduction of 30.5 %. As shown in Figure 1, Czechia significantly reduced emissions from sectors under the EU emissions trading system (ETS). Czechia's net emissions have been impacted by natural disturbances affecting its land use, land-use change and forestry (LULUCF) sector.

Czechia's updated recovery and resilience plan, which dedicates 43 % of its budget to the green transition, includes a REPowerEU chapter focused on modernising energy distribution networks. Czechia submitted a [draft](#) updated national energy and climate plan (NECP) in October 2023. The European Commission [assessed](#) it, making recommendations for the final updated NECP, overdue since June 2024.

Only 27 % of Czechs, compared with a 46 % EU average, [consider](#) climate change among the four most serious problems facing the world. A majority expect national government (54 %) to tackle climate change, while 46 % see it as a task of business and industry, and 41 % expect the EU to take action. Only 16 % find it to be a personal responsibility.

Figure 1 – Czechia's greenhouse gas emissions in million tonnes (Mt), 2005–2023



Data source: European Environment Agency ([EEA](#)), 2024.

*This briefing is one in a series covering all EU Member States.*

### EPRS | European Parliamentary Research Service

Author: Gregor Erbach; Graphics: Ville Seppälä

Climate Action Research and Tracking Service, Members' Research Service

PE 767.169 – December 2024



## Czechia's starting point

Czechia's climate and energy action is based on its 2017 [climate protection policy](#), which also serves as the country's long-term strategy under the Paris Agreement and the EU's [Governance Regulation](#). In April 2023, the Czech government launched a [process](#) to update the 2015 [state energy policy](#). These policies form the basis of the 2019 Czech [NECP](#) required under the Governance Regulation. The plan focused on a shift from coal to nuclear power, bioenergy, and [combined heat and power](#).

The country submitted its draft updated NECP on 23 October 2023. The updated plan aims to align the Czech climate policy with the objectives of the European Green Deal and the 'fit for 55' package. The update is based on scenario modelling with additional policy measures.

Czechia reached its 2020 targets for GHG emissions, share of renewables and energy efficiency under EU climate and energy legislation. The country's over-achievement in all target areas [helped](#) deliver the 2020 EU-level goals and make up for countries that lacked progress in those areas. Between 2005 and 2023, the country succeeded in reducing GHG emissions in energy, industry and agriculture, but increased emissions in transport and waste management. Emissions per capita in Czechia fell by 32.2 %, from 14.8 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) in 2005 to 10.1 tCO<sub>2</sub>e in 2023, still far above the EU average of 7.2 tCO<sub>2</sub>e. In addition, the Czech economy's carbon intensity was reduced by 49 % between 2005 and 2023, but remains 137 % above the EU average.

The Council's 2024 [country-specific recommendations](#) for Czechia stress the importance of climate adaptation actions with a focus on natural water retention measures – a need evidenced by the catastrophic September 2024 [floods](#). The Commission's [country report](#) notes that the Czech energy sector still relies heavily on fossil fuels, which leaves the economy, with its large share of industry, exposed to further energy price shocks. The report points out opportunities for the Czech industry to benefit from the production of green technologies if skills shortages can be overcome.

Czechia's climate policy received a 'low' score in the 2025 [Climate Change Performance Index](#), which ranks countries based on their climate protection performance using primarily quantitative data, with experts in the field providing qualitative evaluation of a country's forward-looking policies. The country was rated 'low' across all categories: GHG emissions, renewable energy, climate policy and energy use.

## Climate action governance

To a large extent, Czechia's climate governance is driven by EU climate policy and the requirements of the Governance Regulation. According to a [report on climate governance systems](#) by Ecologic Institute and think-tank IDDRI, it follows the EU cycle but lacks formalised structure.

Czechia has no overarching climate law, and no dedicated independent scientific advisory council to advise on climate policy and targets. The Commission for Climate Action under the Research, Development and Innovation Council, a stakeholder body set up in 2019, advises policy-makers on climate-related research and development funding to foster innovation. Its members, selected for their area of expertise, include experts from research, business and civil society. The [Government Council for Sustainable Development](#) is a stakeholder and inter-ministerial roundtable on environment and sustainable development. The Czech Hydrometeorological Institute provides scientific expertise on climate issues.

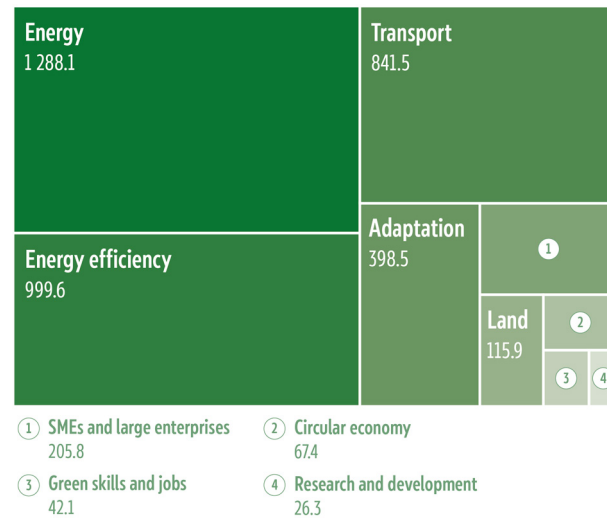
In 2015, Czechia adopted a [strategy for adaptation to climate change](#), and in 2017, a [national action plan on adaptation to climate change](#). Both were updated in 2021 with an emphasis on connectivity between sectors. The national [climate risk assessment](#), last updated in 2019, identifies industry and energy as focus areas.

## Climate action in the national recovery and resilience plan

The Czech [national recovery and resilience plan](#) (NRRP) had an initial value of €7 billion, in grants only, and was revised upwards to €7.7 billion in June 2022. The June 2023 REPowerEU [chapter](#) added €680.5 million; with that revision, Czechia also added a loan component, bringing the total EU contribution, grants and loans combined, to €9.2 billion. The [Czech plan](#) dedicates 43.2 % of the spending (almost €4 billion) to the [green transition](#) – well above the target of 37 % set under the Recovery and Resiliency Facility.

The largest projects under the NRRP's climate dimension (Figure 2) concern railway electrification and infrastructure, heat generation, photovoltaic installations and climate-resilient forests. The plan's REPowerEU chapter addresses decarbonisation of road transport, electricity grids, advisory services for the renovation wave, simplified permitting procedures for renewables, and a legal framework for [energy communities](#), electricity sharing and energy storage.

Figure 2 – NRRP climate dimension (€ million)

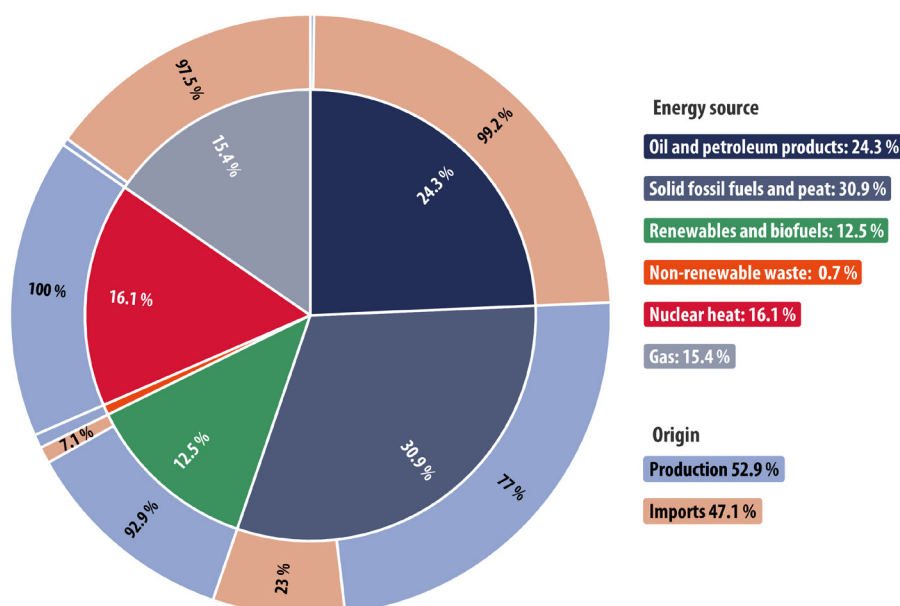


Data source: [European Commission](#), 2024; graphic by Lucille Killmayer, EPRS.

## Energy situation

Czechia's energy supply in 2022 totalled 49.6 million tonnes of oil equivalent, of which more than half (52.9 %) was produced in the country (Figure 3). Energy industries accounted for 36 % of Czechia's GHG emissions. **Solid fossil fuels**, mostly coal, constitute the largest share (31 %) of the energy mix and are primarily produced in the country. Czechia [decided](#) in 2022 to phase out the use of coal for electricity and heat generation by 2033. The [RE:START](#) strategy, launched in 2015, supports economic restructuring and fair transition in the Czech coal regions, using a multi-level governance structure, and the [THETA](#) programme supports research in energy technologies.

Figure 3 – Energy mix and import dependency, 2022



Data source: Eurostat ([nrg\\_bal\\_sd](#)), 2024.

**Oil and petroleum** products, of which 99.2 % are imported, account for 24.3 % of the country's energy supply. [Russian oil](#), imported by pipeline, accounts for more than half of Czechia's oil imports, owing to a temporary derogation until December 2024 in the [EU sanctions package](#). Czechia [plans](#) to end oil imports from Russia in the first half of 2025 by increasing imports through the [Transalpine Oil Pipeline](#).

**Nuclear power** supplies 16.1 % of Czechia's primary energy. Czechia has six nuclear reactors (four in Dukovany and two in Temelín), which generate more than a third of the country's electricity. The state-controlled energy company CEZ is [replacing](#) Russian nuclear fuel with American supplies. Czechia plans to build up to four [new nuclear reactors](#).

**Gas** had a 15.4 % share in the Czech energy mix, with imports accounting for 97.5 % of the supply. Following the start of Russia's war on Ukraine, Czechia [diversified](#) its gas supply by contracting liquefied natural gas (LNG) deliveries and increasing the import of pipeline gas from Norway. Meanwhile, [imports of Russian gas](#) to Czechia rose in late 2023; however, the Czech government insists that this was due to temporary market conditions and does not signify a dependency on Russia. In February 2024, a Canadian company obtained [licences](#) for oil and gas production and exploration in the Czech Vienna Basin, where it expects to start gas production quickly by reopening closed wells and drilling new ones.

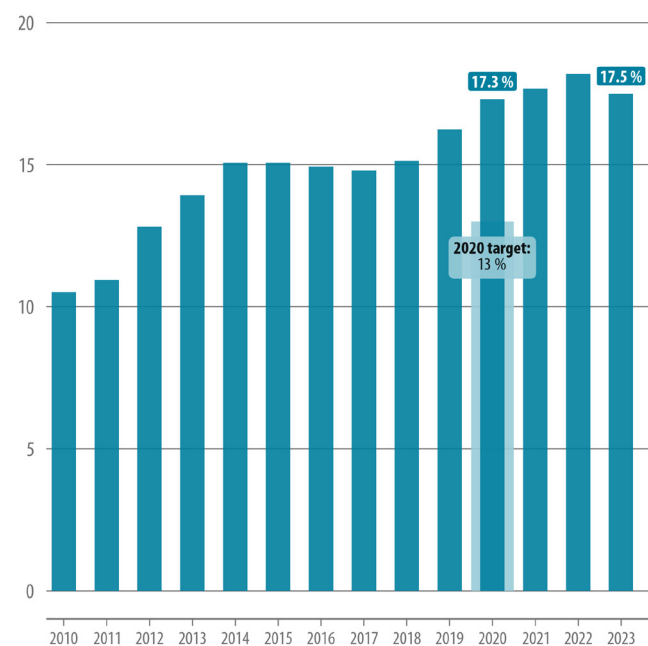
Between 2010 and 2023, the share of **renewable energy sources** (RES) in gross final energy consumption grew by a total of 7 percentage points to 17.5 % (Figure 4). The country exceeded its national 2020 target under the Renewable Energy Directive by a wide margin. The draft updated NECP projects a 30 % RES share by 2030, while the Commission's assessment of the draft plan criticises the lack of sectoral trajectories and a comprehensive policy framework for RES.

Biomass accounts for around 80 % of renewable energy consumption in Czechia and is mostly used for heating. Only 15.5 % of Czech electricity in 2022 was produced from RES. Solar and wind energy have only a small share,

and the country's [resource potential](#) for these energy sources is rather limited. The Czech energy legislation was [amended](#), to reduce barriers to renewables investment and provide a legal framework for energy communities. In June 2024, Czechia launched a [support programme](#) for the construction of wind power plants and presented a [draft law](#) aimed at speeding up the roll-out of RES by creating acceleration zones where simplified approval procedures apply.

Regarding energy efficiency, Czechia over-achieved its 2020 targets for primary and final energy consumption under the Energy Efficiency Directive, and is on track to reaching its 2030 target, according to projections in the draft updated NECP. The Commission's assessment notes that additional policies and measures are needed to reach the target.

Figure 4 – Renewable energy share in final energy consumption

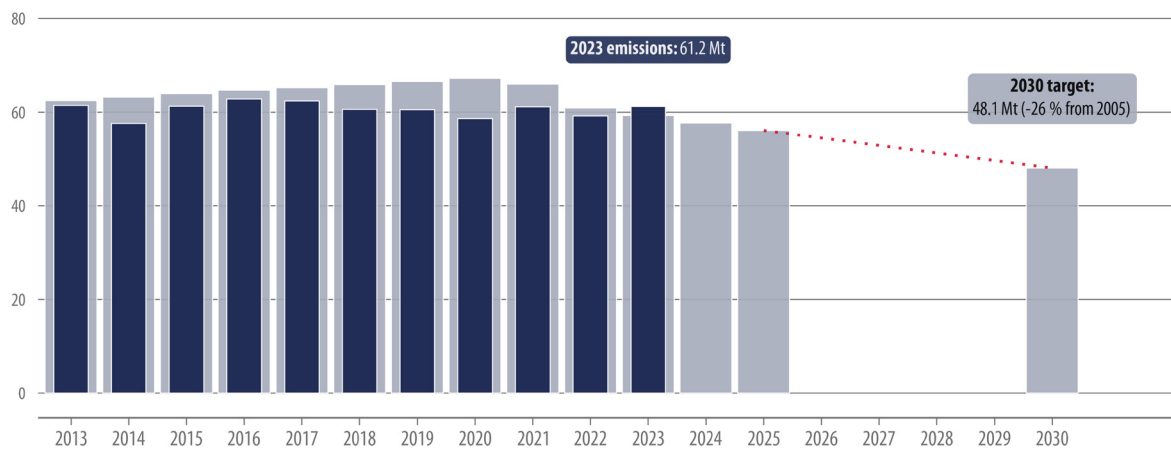


Data source: Eurostat ([nrg\\_ind\\_ren](#)), 2024.

## Sectoral challenges and strategies

**Industry** accounts for 23.7 % of Czechia's GHG emissions, the second-largest source after energy industries with 30.6 %. Industrial decarbonisation is mostly driven by the carbon price in the EU ETS. The country's iron and steel industry has already started replacing carbon-intensive blast furnaces with [electric arc furnaces](#), while emissions reduction in the cement industry is likely to happen after 2030, as it depends on carbon capture, utilisation and storage. The Czech [hydrogen strategy](#), adopted in 2021 and [updated](#) in July 2024, focuses initially on hydrogen valleys, followed after 2030 by interconnections with other Member States and new technologies. Czechia will provide €2.5 billion in State aid, [approved](#) by the Commission, to help manufacturing companies reduce the carbon intensity of production processes by at least 40 % and improve energy efficiency by at least 20 %, with funding from the EU [Modernisation Fund](#).

Figure 5 – Czechia's emissions under the Effort-sharing Decision/Regulation



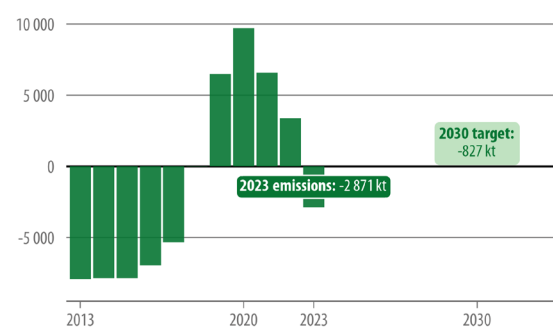
Data source: [EEA](#), 2023.

Sectors covered by the EU effort-sharing legislation include transport, buildings, agriculture, small industrial installations, and waste treatment. Czechia remained below allocations in each year covered under the Effort-sharing Decision (ESD) and delivered a 7 % emissions reduction in 2020 compared with 2005, while the target was an increase of no more than 9 % (Figure 5). Czechia [sold](#) surplus emissions allocations to Germany, which exceeded its 2013–2020 ESD allocations. The 'fit for 55' [revision](#) of the Effort Sharing Regulation (ESR) sets the Czech emissions reduction obligation for 2030 to 26 % compared with 2005.

GHG emissions in the **transport sector** grew by 20 % since 2005, amounting to 19 % of Czechia's emissions in 2023. The draft updated NECP [mentions](#) the shift from fossil transport fuels towards alternative energy, roll-out of recharging and refuelling infrastructure, further electrification of rail and urban public transport, and a shift of freight from road transport to rail and waterways.

The **buildings sector** has a large share of centralised heat production and distribution systems that have the potential to become efficient and decarbonised. In July 2024, the government launched a [support programme](#) for high-efficiency combined heat and power generation. Since 2014, the Czech government

Figure 6 – LULUCF emissions in Czechia



Data source: [EEA](#) (2030 target is based on 2016–2018 baseline), 2024.

has offered CZK 15 billion (€600 million) of '[boiler subsidies](#)' to over 130 000 households, to replace old boilers with modern heating systems and heat pumps. Moreover, it funds [energy-efficient renovation](#) and offers technical assistance.

The **agriculture sector** accounted for 7.1 % of Czechia's GHG emissions in 2023. Czechia [promotes](#) agricultural biogas as a means of reducing methane emissions and producing renewable energy.

By 2030, Czechia [must](#) reduce its LULUCF emissions (Figure 6) by 827 kilotonnes of CO<sub>2</sub>e (ktCO<sub>2</sub>e) compared with its average emissions in 2016, 2017 and 2018 (where accounting adjustments may occur). In 2020, this baseline was -401 ktCO<sub>2</sub>e. The Commission [assessment](#) finds Czechia's draft updated NECP unlikely to deliver on the country's 2030 LULUCF obligation, and recommends that Czechia develop concrete pathways with measures and financing instruments to reach the target.

## Latest policy developments

The Pirate Party, which was part of the governing coalition, launched a discussion on a [Czech climate law](#) and presented a first draft in November 2023. The draft sets national targets aligned with the EU climate targets, establishes a consultation and planning process, and introduces both a climate council to guide and monitor climate policy, and an investment committee for climate expenditure.

Czechia belongs to a French-led [nuclear alliance](#) of 16 European countries that regard nuclear energy as key to decarbonising the EU energy system and aim to develop 150 gigawatts installed nuclear capacity in the EU by 2050, including small nuclear reactors (SMR). In February 2024, the Commission launched a [European Industrial Alliance on SMRs](#) – as [suggested](#) by 12 Member States including Czechia. The Czech government approved a [roadmap](#) for the development of SMRs in November 2023, and signed cooperation agreements with France and the United Kingdom. The United States-backed [Project Phoenix](#) will provide US\$2 million to Czechia, Poland and Slovakia, for a feasibility study on the conversion of coal power plants to SMRs. In July 2024, the Czech government [selected](#) Korea Hydro & Nuclear Power Co. to build two new units at the Dukovany nuclear power plant, for an estimated price of €8 billion per unit. Trial operation should commence by the end of 2036, and commercial operation, in 2038.

## MAIN REFERENCES

Czech Republic, [Czechia – Draft updated NECP 2021-2030](#), 2023.

European Commission, [factsheet](#) on highlights of the Commission's assessment of Czechia's draft updated National Energy and Climate Plan, 2023.

Sila, U. and Frohm, E., [Towards net zero in the Czech Republic](#), OECD, 2023.

Wiedermann, T. et al., [Czech Path to Net Zero](#), Boston Consulting Group and Aspen Institute, 2023.

## DISCLAIMER AND COPYRIGHT

This document is prepared for, and addressed to, the Members and staff of the European Parliament as background material to assist them in their parliamentary work. The content of the document is the sole responsibility of its author(s) and any opinions expressed herein should not be taken to represent an official position of the Parliament.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy.

© European Union, 2024.

[eprs@ep.europa.eu](mailto:eprs@ep.europa.eu) (contact)

[www.eprs.ep.parl.union.eu](http://www.eprs.ep.parl.union.eu) (intranet)

[www.europarl.europa.eu/thinktank](http://www.europarl.europa.eu/thinktank) (internet)

<http://epthinktank.eu> (blog)